

REMARKS

Claim 1 was amended to clarify that the gellan gum was essentially the only gum component of the capsule shell in that no other gum is necessary to obtain a feasible shell. It was further limited to the amount of plasticizer, descriptive basis for which may be found in the specification as filed on page 7, lines 1-2. Claims 9 and 26 were amended to define the term amylose containing starch, such definition being taken from the specification at page 4, lines 23-24. Claim 10 has been amended by including the limitation of claim 11, which has been cancelled. Claim 22 has been amended to correct a typographical error.

Claims 1-19 and 23-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gilleland, et al. (US 6,375,981) in view of Winston, et al. (US 5,342,626) in further view of Chang, et al. (US 5,190,927). Gilleland discloses a film forming composition comprising specific gums, starch derivatives and plasticizer. The hydrocolloid gum may be selected from a variety of gums, including carrageenan, locust bean gum, xanthan gum, gellan gum, agar, alginates, guar gum, gum Arabic, and pectin. The preferred gum is a blend of different carrageenans. As acknowledged by the Examiner, Gilleland does not teach a mixture of high and low acyl gellan gums. Further, Gilleland teaches that while plasticizer is in an amount of 25-75% and the starch is in an amount of 25-75%, the ratio of starch and gum to plasticizer should be in 1:0.8-1:3. This would be outside the currently claimed amount of plasticizer (30 to 80% of the starch) and as is clear from the examples, the preferred amount of plasticizer is clearly in excess of the amount of starch.

The Examiner then uses Winston and Chang to remedy this deficiency. Winston discloses the use of high acyl gum, low acyl gum or a combination thereof. However, Winston's preference is clearly to use one or the other (see the examples). Further Winston states that gellan gum must be used with carrageenan and mannan. Winston neither teaches nor suggests that gellan gum may be used without these other two gums. In contrast, the present invention not only specifies that both high and low acyl gellan gums must be used, but that it is essentially the only gum used.

Chang discloses only a low acyl gum. Further, there is no disclosure that the gum may be used in a capsule, or even the precursor film.

To go from the cited art to the present invention, the skilled artisan would need to start with Gilleland, choosing a non-preferred gum and altering the starch to plasticizer ratio. The artisan would then need to substitute the gum of Gilleland with a combination of high and low acyl gellan gum, even though it is not a preferred or exemplified combination and decide to leave out the other gum components which are essential according to Winston. At best, with picking and choosing, the prior art references cited would result in a gel capsule having starch, plasticizer, high and low acyl gellan gums, carrageenan gum and mannan gum. Not only does this result include gums not claimed in the present invention, but also would have a ratio of starch to plasticizer which would not result in capsules.

Applicants respectfully request entry into the record of the enclosed Shore declaration. Under Ms. Shore's supervision and guidance, the closest film of Gilleland (example 4) was made. As Gilleland does not specify the type of gellan gum, high acyl, low acyl, and a combination were tried. None resulted in

films which could form capsules using a procedure which reflects standard industry procedures. Thus, it is clear that even if a combination of low and high acyl gums as suggested by Winston was used in the Gilleland formulation, the present invention does not result. This is reflected in Ms. Shore's conclusion that the formulations taught by Gilleland did not result in films that could survive conventional capsule making process."

Claims 20-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Gilleland, et al. (US 6,375,981) in view of Liu, et al. (US 6,303,290). The deficiencies of Gilleland are clearly outlined above. As Liu is used to teach the feasibility of using colloidal particles, it clearly does not remedy the Gilleland deficiencies.

Applicants choice to not address each and every statement made by the Examiner should not be taken as an admission that they are correct. Applicant submits that in view of the above arguments overcoming the art, the Application is now in condition for allowance and respectfully requests early notice to that effect.

Respectfully submitted,



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